

Appl. No. 10/693,360
Response dated April 23, 2007
Reply to Office Action of December 22, 2006

REMARKS

Claims 1, 2 and 9 have been amended. Claims 4 – 7, 10 – 12, 15, 16, and 18 – 20 are withdrawn. Claims 3, 13 and 14 have been cancelled. Claims 8 and 17 remain as originally presented.

Claim 2 has been objected to under 37 CFR §1.75(c) as being of improper dependent form for failing to further limit the subject matter of claim 1. However, it is submitted that claim 2 further limits the biomedical devices recited in claim. As claim 2 has been amended to more clearly point out this limitation, it is requested that the Examiner reconsider and withdraw the present objection.

Claims 1 – 3, 8, and 9 have been rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 20 of U.S. Patent No. 6,261,169. Accordingly, a terminal disclaimer, disclaiming the terminal portion of any patent granted on the instant application that would extend beyond the expiration of the '169, is filed herewith. Thus, it is requested that the Examiner withdraw the present rejection.

Claims 13 and 14 are rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement. As claims 13 and 14 have been cancelled, it is requested that the Examiner withdraw the present rejection.

Claims 1 – 3, 8, 9, 13, 14, and 17 have been rejected under 35 USC §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner argues that the term “segmented copolyester” is not recognized in the art and is not defined in the

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specification, such that an artisan would not be appraised at the meaning of "segmented copolyesters" and thus would be unable to discern the metes and bounds of the claimed invention. However, a quick search of the on-line Patent Office database uncovers 44 patents in which the term "segmented copolyester" is employed in the claims. Some of those 44 patents are to the present inventor but many are not. They are assigned to polymer, fiber and film companies world-wide. Accordingly, it is submitted that the term "segmented copolyester" is well known to those of ordinary skill in the art and it is requested that the Examiner reconsider and withdraw the present rejection.

Claims 1 – 3 have been rejected under 35 USC §102(b) as being unpatentable over Tian et al. However, the present segmented copolyesters preferably are made by end-grafting at least two cyclic monomers on an amorphous polyaxial polymeric initiator wherein the "branches" extend outwardly from a monocentric atom. This is contrary to Tian's teaching where the branches originate from a trimesic acid center (not one central atom). More importantly, the instant application deals with an amorphous core grafted outwardly with copolymeric chains having limited crystallizability, thus limiting the overall degree of crystallinity as measured in terms of the heat of fusion (ΔH_f) to less than 25 J/g, as is set forth in claim 1. This limited crystallinity is a key requirement for producing a high compliance sealant that would not compromise the flexibility of the graft. In contrast, those skilled in the art of block copolymers will predict that the heat of fusion of the Tian copolymers would exceed 40 J/g because of the highly crystallizable nature of the PCL and PLL blocks. Accordingly, it is submitted that the Tian, et al.

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article does not anticipate the present claims and it is requested that the Examiner reconsider and withdraw the present rejection.

Claims 1 and 2 have been rejected under 35 USC §103(a) as being unpatentable over Bennett, et al. The Examiner argues that the four-armed star polymers of poly(dioxanone-co-glycolide) of the Bennett article are "segmented copolyesters" as defined in the present claims. However, claim 1 has now been amended to include the limitation of cancelled claim 3. Further, as is noted on pages 102S of the paper, the Bennett polymer was designed to be a liquid at room temperature. Thus, the present sealant cannot be anticipated by the Bennett, et al. article. Accordingly, it is requested that the Examiner reconsider and withdraw the present rejection.

Claims 1 – 3 have been rejected under 35 USC §102(e) as being anticipated by U.S. Patent No. 7,097,907 to Bennett, et al. The Examiner argues that the star polymers of dioxanone attached to a poly hydroxyl core of either mannitol or threitol are "segmented copolyesters" as defined by the present claims 1 and 2 and that, although they are made by a process other than that of claim 3, the resulting polymers are identical to those of claim 3. However, it is submitted that the resulting polymers of the Bennett, et al. process are not identical to those made by the present process, which limitation is now found in amended claim 1. Specifically, as compared to the ring-opening polymerization method used to make the polymers of the Bennett, et al. reference, the present two-step reaction ensures segmentation. Thus, the present claimed polymers contain a multiplicity of the chain components, which provides for improved compliance

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and, thereby, protects the flexibility of the biomedical device being sealed. Accordingly, it is requested that the Examiner reconsider and withdraw the present rejection.

Claims 8, 9, and 17 have been rejected under 35 USC §103(a) as being unpatentable over Tian in view of U.S. Patent No. 6,309,669 to Setterstrom, et al. The Examiner argues that the Tian reference only lacks carboxylate side-groups which are taught by Setterstrom, et al. However, as discussed above, one of ordinary skill in the art would recognize that the present polymers, which have a limited degree of crystallinity as measured in terms of the heat of fusion (ΔH_f) at less than 25 J/g, as is set forth in claim 1, are more highly compliant than those of Tian, which contain highly crystallizable PCL and PLL blocks. End-capping the polymer of Tian as is taught by Setterstrom, would not render obvious the present highly compliant, segmented copolyesters. Accordingly, it is requested that the Examiner reconsider and withdraw the present rejection.

Claims 8, 9, and 17 have been rejected under 35 USC §103(a) as being unpatentable over the '907 reference in view of Setterstrom, et al. Hereagain, the Examiner argues that the '907 reference only lacks carboxylate side-groups which are taught by Setterstrom, et al. However, as discussed above, it is the two-step reaction process that ensures segmentation and, thereby, improved compliance in the present polymers. End-capping the polymers of the '907 reference as is taught by Setterstrom, et al., would not render obvious the present highly compliant, segmented copolyesters. Accordingly, it is requested that the Examiner reconsider and withdraw the present rejection.

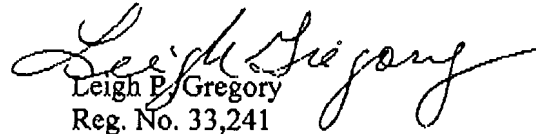
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The prior art made of record and not relied upon has been carefully considered and has been deemed to be of no more relevance than that relied upon.

Accordingly, it is submitted that the present case is in condition for allowance and such action is respectfully requested.

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Respectfully submitted,


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